**Description:** RECOMBINANT HUMAN LEPTIN

**Name:** LEPTIN

**Format:** Rec. Protein

**Product Type:** Recombinant Protein

**Quantity:** 1 mg

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

<table>
<thead>
<tr>
<th>Application</th>
<th>Yes</th>
<th>No</th>
<th>Not Determined</th>
<th>Suggested Dilution</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELISA</td>
<td></td>
<td></td>
<td></td>
<td>0.2 - 0.4ng/well</td>
</tr>
<tr>
<td>Western Blotting</td>
<td></td>
<td></td>
<td></td>
<td>1.5 - 3.0ng/lane</td>
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<tr>
<td>Functional Assays</td>
<td></td>
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</tbody>
</table>

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

### Target Species

Human

### Product Form

Purified recombinant protein - lyophilized

### Reconstitution

Reconstitute with 1.0 ml distilled water. Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution. For extended storage, the addition of 0.1% bovine serum albumin (BSA) is recommended.

### Preparation

Purified recombinant leptin expressed in *E.coli*. Sterile filtered through a 0.2 micron filter

### Buffer Solution

Lyophilized with 0.1% TFA

### Preservative Stabilisers

None present

### Endotoxin Level

< 1.0 EU/ug

### Approx. Protein Concentrations

1.0 mg/ml after reconstitution

### External Database Links

**UniProt:**

- [P41159](#)

Related reagents
**Entrez Gene:**

- **3952** LEP

**Related reagents**

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**Synonyms**

- OB, OBS

**Product Information**

Recombinant human leptin is a leptin preparation made in *E. coli*. Leptin is a major adipose-derived hormone and member of the leptin family, which plays a key role in appetite control and the regulation of energy expenditure.

Secreted leptin associates with proteins within the bloodstream and is transported to the brain, where it inhibits or up-regulates the activity of neuropeptides such as neuropeptide Y (NPY) and alpha-melanocyte-stimulating hormone respectively. Leptin is a recognised marker of obesity, with a correlation between circulating levels of leptin and body fat mass, and defects in leptin production result in severe obesity. Regulators of leptin expression include insulin, cortisol, cAMP and thiazolidinediones.

**Protein Molecular Weight**

16.0 kDa (147 amino acid residues)

**Activity**

PHP198 is biologically active in the *ob/ob* mouse obesity model. The *ob/ob* mice were treated via intraperitoneal injection once daily at a dose of 5 µg Leptin/gm of body weight for 7 days. Significant effects on body weight, food consumption, and plasma glucose levels were observed to saline-treated controls.

**Purity**

>98% by SDS PAGE and HPLC

**ELISA**

Recombinant human leptin may be use as a standard for ELISA applications with purified human leptin antibody (AHP1616).

**Western Blotting**

Recombinant human leptin may be used as the positive control for Western Blotting applications with a purified human leptin antibody (AHP1616).

**Storage**

Prior to reconstitution store at -20°C.

After reconstitution store at -20°C.

Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

**Guarantee**

Guaranteed for 3 months from the date of reconstitution or until the date of expiry, whichever comes first. Please see label for expiry date.

**Health And Safety Information**


**Regulatory**

For research purposes only